

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

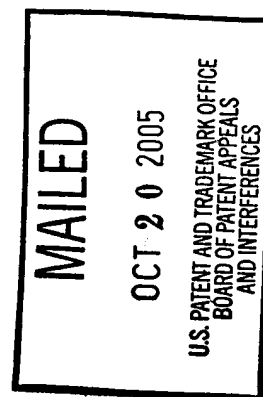
UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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**Ex parte** QI WANG

\_\_\_\_\_  
Appeal No. 09/761,625  
Application No. 2005-2354

\_\_\_\_\_  
ON BRIEF  
\_\_\_\_\_



Before PAK, WALTZ and DELMENDO, **Administrative Patent Judges.**

PAK, **Administrative Patent Judge.**

**DECISION ON APPEAL**

This is a decision on an appeal from the examiner's final rejection of claims 25 through 27, 31 through 34, 36, 38, 39, 42 and 44 through 46. Claims 29, 30, 35, 37, 40, 41 and 43 stand withdrawn from consideration by the examiner as being drawn to a non-elected invention. Claims 28, 47 and 48, the remaining

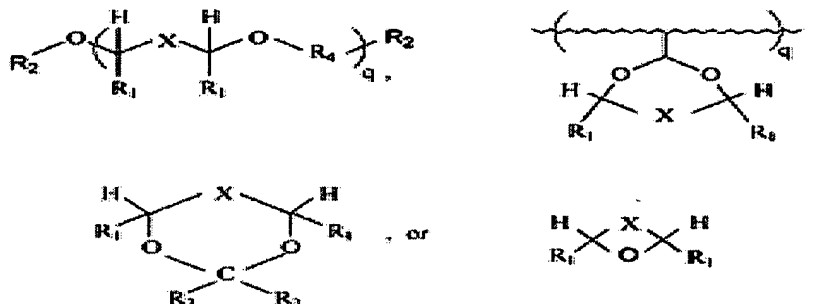
Appeal No. 2005-2354  
Application No. 09/761,625

claims pending in the above-identified application, stand allowed by the examiner. We have jurisdiction over this appeal pursuant to 35 U.S.C. § 134.

**APPEALED SUBJECT MATTER**

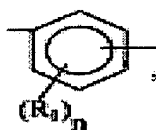
The subject matter on appeal is directed to "[a] polymer which comprises polyvinyl chloride, polycarbonate, polyurethane, polyethylene, or polypropylene, containing about 0.005 to about 10 phr of a stabilizer . . . [emphasis ours]." See claim 25. According to the appellant (the specification, page 1), "when a particular type of stabilizer is added to certain polymers, the polymers degrade and yellow substantially less after exposure to oxidation." "The stabilizers function as antioxidants to inhibit various forms of oxidation." See the specification, page 10. Further details of the appealed subject matter are recited in claim 25 which is reproduced below:

25. A polymer which comprises polyvinyl chloride, polycarbonate, polyurethane, polyethylene, or polypropylene, containing about 0.005 to about 10 phr of a stabilizer having the formula:



where X is  $-R_1C=CR_1-$ ,  $-C=C-$ ,

or



each R is independently selected from hydrogen and R', each R' is independently selected from alkyl from C<sub>1</sub> to C<sub>20</sub>, aryl from C<sub>6</sub> to C<sub>20</sub>, alkaryl from C<sub>7</sub> to C<sub>20</sub>, and aralkyl from C<sub>7</sub> to C<sub>20</sub>; each R<sub>1</sub> is independently selected from R, OR, RCO, ROCO, ROCO<sub>2</sub>, N(R)<sub>2</sub>, (R)<sub>2</sub>NCO<sub>1</sub>, SR, and halogen; each R<sub>2</sub> is independently selected from R, RCO, and ROCO, and two R<sub>1</sub> groups, two R<sub>2</sub> groups, or an R<sub>1</sub> group and an R<sub>2</sub> group can be bridged together to form a ring, except that when X is  $-R_1C=CR_1-$  at least one R<sub>2</sub> is not hydrogen; each R<sub>3</sub> is independently selected from R', RCO, ROCO, ROCO<sub>2</sub>, OR, SR, and N(R)<sub>2</sub>; R<sub>4</sub> is alkylene from C<sub>1</sub> to C<sub>20</sub>, arylene from C<sub>6</sub> to C<sub>20</sub>, (aryl)alkylene from C<sub>7</sub> to C<sub>20</sub>, (alkyl)arylene from C<sub>7</sub> to C<sub>20</sub>, alkanediyl from C<sub>1</sub> to C<sub>20</sub>, (aryl)alkanediyl from C<sub>7</sub> to C<sub>20</sub>,  $-CO-(alkylene)-CO-$  from C<sub>1</sub> to C<sub>20</sub>,  $-CO-arylene-CO-$  from C<sub>6</sub> to C<sub>20</sub>,  $-CO-(aryl)alkylene-CO-$  from C<sub>7</sub> to C<sub>20</sub>, and  $-CO-(alkyl)arylene-CO-$  from C<sub>7</sub> to C<sub>20</sub>; and q is 1 to 1000.

Appeal No. 2005-2354  
Application No. 09/761,625

### **PRIOR ART**

The examiner does not rely on any prior art references to support his position.

### **THE REJECTION**

Claims 25 through 27, 31 through 34, 36, 38, 39, 42 and 44 through 46 stand rejected under 35 U.S.C. § 112, first paragraph, as lacking an enabling disclosure for the subject matter presently claimed.

### **OPINION**

We have carefully reviewed the claims and specification, including all of the evidence and arguments advanced by both the examiner and the appellant in support of their respective positions. This review has led us to conclude that the examiner's Section 112 rejection is not well founded. Accordingly, we reverse the examiner's Section 112 rejection for essentially the reasons expressed in the Brief and the Reply Brief. We add the following primarily for emphasis and completeness.

The examiner states (Answer, page 3) that:

Claims 25-27, 31-34, 36, 38, 39, 42 and 44-46 are rejected under 35 U.S.C. [§] 112, first paragraph, because the specification, while being enabling for the stabilizer compounds in the examples (see page 12 of the spec.), does not reasonably provide enablement for the multitude of stabilizer compounds of claims 25-27,

31-34, 36, 38, 39, 42 and 44-46. The person of ordinary skill in the art would not be enabled by the specification to **make and use all** the claimed stabilizer compounds, commensurate in scope with these claims.

As our reviewing court stated in *In re Wright*, 999 F.2d 1557, 1561 27 USPQ2d 1510, 1513 (Fed. Cir. 1993):

Although not explicitly stated in section 112, to be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without "undue experimentation." . . . (the first paragraph of section 112 requires that the scope of protection sought in a claim bear **a reasonable correlation** to the scope of enablement provided by the specification). Nothing more than objective enablement is required, and therefore it is **irrelevant whether this teaching is provided through broad terminology or illustrative examples**. [Citations omitted; emphasis ours.]

Factors to be considered in determining whether a disclosure would require "undue experimentation" include (1) the breadth of the claims, (2) the amount of direction or guidance presented, (3) the nature of the invention, (4) the presence or absence of working examples, (5) the quantity of experimentation necessary, (6) the state of the prior art, (7) the relative skill of a person having one of ordinary skill in the art and (8) the predictability or unpredictability of the art. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

Here, the specification states, in reference to the claimed stabilizers, (page 9) that:

[t]he polymeric stabilizers are expected to be more effective as they have less tendency to migrate or leach out of the stabilized polymer. Preparation of these polymers can be achieved by reactions known to those skilled in the art. For example, the polymeric esters can be prepared by reacting the diol . . . with a diester, diacid, diacid chloride, or dianhydride.

The specification also indicates (page 7) that:

These stabilizers can be prepared by condensing an allylic diol, or an aromatic analog of an allylic diol, with an aldehyde, ketone, acid, acid halide, ester, alkyl halide, or alcohol or by other reactions known to those skilled in the art, to form derivatives. See, for example, "A Stereospecific Route to Aziridinomitosanes: The Synthesis of Novel Mitomycin Congeners," by Samuel Danishefsky et al., *J. Am. Chem. Soc.*, **1985**, 107, 3891-3898.

The specification further provides eleven working examples employing the claimed stabilizers which are said to be commercially available. See the specification, pages 10-12. Consistent with this guidance, the Rule 132 declaration of record executed by Qi Wang on September 20, 2002 states that the claimed stabilizers are all either commercially available from the Sigma-Aldrich Company or can be prepared from known "straightforward techniques." See the declaration, page 1. The declaration then details the known techniques which can be used to prepare the claimed stabilizers. See the declaration, pages 2-3.

The examiner takes the position that the specification and the declaration do not provide a description that enables each and every stabilizer recited in the claims on appeal. See the Answer, page 4. However, on this record, the examiner has not supplied any evidence or sound reasoning to doubt the accuracy of the statements in the specification and the declaration.<sup>1</sup> **In re Marzocchi**, 439 F.2d 220, 223-24, 169 USPQ 367, 369-70 (CCPA 1971). Nor has the examiner adequately explained why one of ordinary skill in the art having the knowledge of the art as reflected in the declaration would believe that the scope of protection sought in the claims on appeal does not bear a reasonable correlation to the scope of enablement provided by the specification.<sup>2</sup> In other words, the examiner's conclusory

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<sup>1</sup> The declaration indicates that the declarant, Qi Wang, understood the full scope of the claims on appeal. The declarant, Qi Wang, knowing the breadth and scope of the claims on appeal, declared that the stabilizers within the scope of the claims "are all either commercially available or can be prepared by [known] **straightforward** techniques . . . [emphasis ours]." See the declaration, page 1. The declarant, Qi Wang, made this and other statements in the declaration "with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code . . . ." See the declaration, page 3. Thus, absent evidence to the contrary, the statements in the declaration are presumably accurate.

<sup>2</sup> At page 6 of the Answer, the examiner's conclusory statement that certain compounds cannot be prepared without undue

Appeal No. 2005-2354  
Application No. 09/761,625

statements do not demonstrate that one of ordinary skill in the art could not make and use the claimed invention from the disclosure in the specification coupled with information known in the art without undue experimentation. ***In re Stephens***, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976).

In reaching this conclusion, we note the examiner's reference to the decision rendered on September 6, 2002 by the previous merits panel on a related appeal involving Application 09/223,710, Appeal No. 2001-0852. The examiner's reliance on this earlier decision is inappropriate since the underlying facts resulting in the earlier decision are substantially different from those presented in this appeal.

Thus, based on the totality of record, including due consideration of all of the arguments and evidence advanced by both the examiner and the appellant in support of their respective positions, we determine that the preponderance of evidence weighs most heavily in favor of enablement within the meaning of 35 U.S.C. § 112, first paragraph. Accordingly, we

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experimentation is not supported by any objective evidence. Moreover, the examiner's argument relating to compounds not useful as stabilizers ignores the limitation of the claims on appeal. ***Id.*** The term "stabilizer" in the claims on appeal limits the claimed compounds to those compounds which can function as stabilizers.



Appeal No. 2005-2354  
Application No. 09/761,625

reverse the examiner's decision rejecting all the claims on appeal under 35 U.S.C. § 112, first paragraph.

#### ***OTHER ISSUES***

As a final point, we note that the appellant states that "[t]here are no related appeals or interferences." See the Brief, page 1. However, we discover that appeals involving Application No. 10/065,636 (Appeal No. 2005-2513) and Application No. 09/223,710 (Appeal No. 2001-0852) are related to the present appeal. In these related appeals, the examiner relies on U.S. Patent 4,082,716 issued to Fielding et al. (Fielding) on April 4, 1978 and U.S. Patent 1,941,474 issued to Jaeger on January 2, 1934 to reject some of the claims directed to a combination of a polymer (such as polyethylene, polypropylene, PVC, polycarbonate, polyether and polyester) and an antioxidant (stabilizer) having a phthalide structure. In the earlier decision on related Appeal No. 2001-0852, the previous merits panel also required the examiner to consider the applicability of "an article by Peter Solera titled '*New Trends in Polymer Stabilization*' from the Journal of Vinyl & Additive Technology, published in September 1998, Vol. 4, No. 3, pages 198 through 210" to claims directed to

Appeal No. 2005-2354  
Application No. 09/761,625

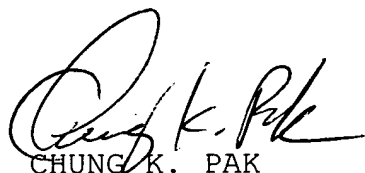
the above combination. See the earlier decision, pages 19-20. We further note that it does not appear that the examiner reviewed product information sheets on commercially available stabilizers within the claims on appeal. Thus, upon return of this application to the examiner, the examiner is to review the above-mentioned references and determine whether they individually, or in combination, affect the patentability of the presently claimed subject matter. The examiner may request at least some of the above references from the appellant pursuant to 37 CFR § 1.105 (2000).

Appeal No. 2005-2354  
Application No. 09/761,625

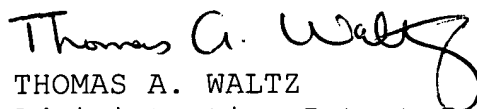
**CONCLUSION**

In view of the foregoing, we reverse the examiner's decision rejecting the claims on appeal under Section 112, first paragraph and return the application to the examiner to consider the other issues instructed above.

**REVERSED**



CHUNG K. PAK  
Administrative Patent Judge



THOMAS A. WALTZ  
Administrative Patent Judge



ROMULO H. DELMENDO  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS AND  
INTERFERENCES

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Appeal No. 2005-2354  
Application No. 09/761,625

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